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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,057	11/21/2001	Yoshinari Takabatake	122.1475	1035

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EXAMINER

ALIE, GHASSEM

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/989,057

Applicant(s)

TAKABATAKE ET AL.

Examiner

Ghassem Alie

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding Claim 3, “ the rotary knife is offset from the figure center” it is not clear. It is not clear where the rotary knife is offset from.

Regarding claim 9, “ the guide roller” lacks antecedent bases.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otani et al. (5,881,623), hereinafter Otani, in view of Reichert, Sr., et al. (1,876,075), hereinafter Reichert. Regarding claim 1, Otani teaches a roll paper cutter for cutting roll paper including a rail 6 extending in longitudinal direction of the rail perpendicular to the roll paper feeding direction. Otani also teaches a rotary knife 3a pivotally supported by a carriage 1 and rotated by coming into the contact with another knife 3b. Otani also teaches that the carriage 1 is moved in the longitudinal direction of the rail 6 and a cutting edge inter section formed by the rotary knife 3a, which is rotated by the movement of the carriage 1. See Figs. 1-4 and col. 4, lines 9-60 in Otani. Otani does not teach a stationary knife that is supported by

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the carriage. However, the use of a stationary knife in conjunction with a rotating knife for performing a cut is well known in the art as taught by Reichert. Reichert teaches a carriage 1 having a stationary knife 6 supported by the carriage 1 and a rotary knife 3, which comes into the contact with the stationary knife 6. See Figs. 1-3 and page 1, lines 55-88 in Reichert. It would have been obvious to a person of ordinary skill in the art to replace the lower rotating knife (3b) of Otani's paper roll cutter with the stationary knife as taught by Reichert in order to perform a clean cut in scissor-like manner with the co-operative edges of the circular knife and the stationary knife.

Regarding claim 2, Otani as modified by Reichert teaches everything noted above including that the position of the cutting edges intersection formed by the rotary knife 3a and the stationary knife 6 as taught by Reichert fluctuates. The rotary knife 9 is biased by the spring 9, which inherently causes fluctuations in the position of cutting edges between the rotary knife 3a and the stationary knife 6 as taught by Reichert. See Fig. 1 in Reichert and Otani.

Regarding claims 4 and 5, Otani teaches everything noted above except that the center of the cutting edge intersection is made to fluctuate by a rotary cutter, which does not have a profile formed into a real circle. However, use of the not circular rotary knives is well known in the art as taught by Reichert. Reichert teaches a rotary cutter that has a profile formed into an ellipse or an oval. See Fig. 1 in Reichert. It would have been obvious to a person of ordinary skill in the art to replace the rotating knife of Otani's paper roll cutter with the oval-shaped rotary knife as taught by Reichert in order to performed a scissor-like cutting created by self actuating mechanism of the oval-shaped of the rotary knife.

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Regarding claim 7, Otani as modified by Reichert discloses everything noted above including that the stationary knife 6 as taught by Reichert has a guide section for guiding an edge of the roll paper to the cutting edge intersection. The guide section of the rotary blade 3b, which has been replaced by the stationary blade as taught by Reichert, guides an edge of the roll paper to the cutting edge intersection. See Fig. 1 in Otani and Reichert.

Regarding claim 8, Otani as modified by Reichert discloses everything noted above including that the guide section between the roll paper and the stationary blade 6 as taught by Reichert is arranged on the same side in the thickness direction of the rail 6. See Fig. 1B in Otani.

Regarding claim 9, Otani as modified by Reichert discloses everything noted above including that cutting edge intersection for cutting the roll paper is arranged closer to the roll of paper than the rail 6. The cutting edge of knives 3a, 3b appears to be closer to the rail 6 than a paper to be cut. See Fig. 1A in Otani.

Regarding claim 10, as best understood, Otani everything noted above including that the rotary knife 3a is attached to a shaft 10. See Fig. 11 in Otani.

Regarding claim 11, Otani everything noted above including that the carriage 1 is moved by a screw shaft 10. See Fig. 11 in Otani.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otani in view of Kaltenbach et al. (1,796,463), hereinafter Kaltenbach. Regarding claim 6, Otani teaches everything noted above except that the rotary knife has a profile, which is formed into a polygon. Kaltenbach teaches a rotary knife, which has a profile formed into a polygon. See Fig. 1 in Kaltenbach. It would have been obvious to a person of ordinary skill in the art to

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replace the rotating knife of Otani's paper roll cutter with the polygon-shaped rotary knife as taught by Kaltenbach in order to performed a scissor-like cutting created by self actuating mechanism of the oval-shaped of the rotary knife.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertin4nt to applicant's disclosure.

Greenberg (3,562,907), Ozeki (6,240,645), Hinojosa et al. (5,911,530), Webster (1,629,560), Miazga et al. (6,135,001), Kanbe (6,302,605), Yokota et la. (4,979,838), and Shipos et al. (4,525,088) teach a rotary knife mechanism for a printer.

Wilczek (1,265,151) and Kuts (3,848,501) teach a non-circular rotary cutter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (703) 305-4981. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (703) 305-1082. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9302 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.


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GA/ga

September 17, 2003



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